SEQUENCE LISTING

(1) GENERAL INFORMATION:

    (i) APPLICANT: Cynader, Max
                Prasad, Shiv

    (ii) TITLE OF INVENTION: GENE SEQUENCES ASSOCIATED WITH NEURAL
           PLASTICITY AND METHODS RELATED THERETO

    (iii) NUMBER OF SEQUENCES: 132

    (iv) CORRESPONDENCE ADDRESS:
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    (v) COMPUTER READABLE FORM:
        (A) MEDIUM TYPE: Floppy disk
        (B) COMPUTER: IBM PC compatible
        (C) OPERATING SYSTEM: PC-DOS/MS-DOS
        (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

    (vi) CURRENT APPLICATION DATA:
        (A) APPLICATION NUMBER: US
        (B) FILING DATE: 28-APR-1999
        (C) CLASSIFICATION:

    (viii) ATTORNEY/AGENT INFORMATION:
        (A) NAME: Potter, Jane E. R.
        (B) REGISTRATION NUMBER: 33,332
        (C) REFERENCE/DOCKET NUMBER: 230018.401C1

    (ix) TELECOMMUNICATION INFORMATION:
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(2) INFORMATION FOR SEQ ID NO:1:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 62 base pairs
        (B) TYPE: nucleic acid

```
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear




    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

CCTGGCTGCC TGTGCCTCAA CCCCACTCCC AGGGAGACCA AAAGCCTTCA TACATCTGAA      60

AT                                                                     62

(2) INFORMATION FOR SEQ ID NO:2:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 92 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear




    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

GCGACGGACG AGATGTCTTC GGTGTCCTTG CGTTCGCTAC CAGGTCAAAA TGCAAATCTT      60

CGTGAAAACC CTGACGGGCA AGACCATCAC CC                                    92

(2) INFORMATION FOR SEQ ID NO:3:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 114 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear




    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

TTTTTTTTAA TTGAGAAAGA CATAATGGTT ATGGCATTGG CTTGAAACCA GTTAAACACC      60
```

GTTTCGATTC CTTCCTTTCT TATTTTAATA GTACGTTAAG TTGGCTCTTC AAAT   114

(2) INFORMATION FOR SEQ ID NO:4:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 86 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

ATCCATACTT GCTATTTATT TAGGCTTCTA GTTTGGAACA AAAGGNCAAG AGTTAAAAAA   60

ATGCCAACAT TTCAAGGACC CTTGTT   86

(2) INFORMATION FOR SEQ ID NO:5:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 112 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

CTTCCCCCAC TCATCCCTGC TCTGGTCCCT TGTGCCCCTT GGCCCTTTAC CCCAAGCACC   60

ACCCCACAGA CTGGGGACCA GCCCCCTCTC CTGCCTATGT CTCGCCCCAA AT   112

(2) INFORMATION FOR SEQ ID NO:6:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 126 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

CCTTCCCTTC CTTACTTTAA TAGTTCGGTA GTACGGANGT TAAATCTTCA GGTCGGTGGT   60

ACGCAGCCGG GCAACCATGC AATGGATTNA AGGTNGGTAA TGGTACAATT GGCCTATGCC   120

CACTTT   126

(2) INFORMATION FOR SEQ ID NO:7:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 121 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

CTTTAGAGCG CACTCAGGGG CACTTGNAAG GGCTTCTCAC GAGCGTGGCT GTGGCCATCT   60

GTGGAAAGAG CTTCTCGCAG TGNTCGGTNG NNTTATCCCC CACGCCCNTA GNGCACTACT   120

C   121

(2) INFORMATION FOR SEQ ID NO:8:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 94 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

TTAGTTTCAC ATTCAAGGGG CTTATGAAGA GATGCAAGTC AGGATACATA GGCTTGATTC   60

TTGGCAGCTT AATGAGTATT CACTGAGGCA CTTG   94

(2) INFORMATION FOR SEQ ID NO:9:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 76 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

CCGCCTGATA TAGACACTTC GTAGAGCGTA GTTTGACTAT TCCTATACGT TTCTATTTAT   60

TGATGAGGAT CCTAAA   76

(2) INFORMATION FOR SEQ ID NO:10:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 148 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

TTTATTATGC ACACGTTGTT CAAATAAACC AGTGTGGGAT GTTAAGACTA TCAATTAATG   60

GTGGGATTAT GTTTGGCATT TTATTNNTTA TAAATATATA TTTTTTCTGA ATGTGTCCTG   120

AGNTCCAAAG AGGTTGGGGG NGGGGGNG   148

(2) INFORMATION FOR SEQ ID NO:11:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 144 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

TTTCCTTGGG TTGCTGGTTG GATTAATCTT TAATAACAAT ATATAGAATT GTAGACTGAT   60

GTTTTAGTGT TTTTCCAACA CACAAACATA AAAATAAAAA CAAGTCGGAC CGCTACTTCT   120

GTGTAAATCA AGATCNTTGG GGAA   144

(2) INFORMATION FOR SEQ ID NO:12:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 139 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

CCTGGCCAGC GGGCAGGGCC ACGAAGGCAA GATCGGTCGT TGTGCTTGTG TTTTCCAAGG   60

AGACGANCCN ATNANCTGTA AATATGTACA CGTNTCTGTC TGTGTGTCCT TCGNGGNAGG   120

ATGGTCGGNT CTATTTAAA   139

(2) INFORMATION FOR SEQ ID NO:13:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 139 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

```
CCAAAATATA TTTGGGCCAA ATGTTCCGAG GATGAGTCAG GCTGTCCTTC GCGCGGGCGA        60

GACGAAGCTT CACACGGGAC AAGATGGGAT GGGTTGGAGG AATGGATGGT CCCCCAAACA       120

ATGGGCTTAN AANAATTAT                                                   139
```

(2) INFORMATION FOR SEQ ID NO:14:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 121 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

```
TTTACTGACA AGCATGGGGA AGTGTGCCCA GCTGGCTGGA AGCTGGCAGT GATACCATCA        60

AGCCTGATGT CCAGAAGAGC AAAGAATATT TCTCTAAGCA GAAGTGAGCG CTAGGCCTTT       120

T                                                                     121
```

(2) INFORMATION FOR SEQ ID NO:15:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 132 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

```
CGGCTTCCTG GGCTTTATCG TATGAGCCCA TCACATGTTT ACTGTAGGAA TGGATGTAGA        60

CACACGAGCA TACTTTACAT CAGCCACTAT AATTATTGCC ATTCCTACCG GGGTGAAAGT       120

ATTTAGTTGA CT                                                          132
```

(2) INFORMATION FOR SEQ ID NO:16:

   (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 130 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

GGAGCTTGAA GAAGAAGTTT TTTACCACCG TCTTTTTCTA CTTTATACAG AAGTAGATAT   60

TCCTGCGAAG AAGAATAATT TGGGGTAATA TGCAAGCTAG TAGATGTGGC ACAGCAAATC   120

ATATAATAAA   130

(2) INFORMATION FOR SEQ ID NO:17:

   (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 209 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

ACCCCACCCA GAGCCTGGAA TCAGGATCCC AGGGTCTAGC CAGCCTGGGG TCCAGAACCC   60

AGAATCCAGC CTGTCTGAGC TGGACCTAGC AGCCCAGAGT CTAGCCAGCC TCGCTCCAAG   120

AGGGGCTCTG GTGGCCTAGG TAGACAGGCC TGGGTGGGGA TCAATGAGTT GGTGCTAGGG   180

CCAGGGCACC TCGACTCTGC TCCATACTG   209

(2) INFORMATION FOR SEQ ID NO:18:

   (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 188 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

CACCTTCCTG AAACACCTGT GGCTTTGACT TTGTTATTGA TCCAGATTAT TCTCCTTGCA   60

TTGGGGAAAA TATCTTTCAT ATTTCACTGT AAGGGATGGT TTTGCGAGAG TAAGTTAATG   120

TCAAGACAAA CTGCCAATAC AAGAGCCCAA TGATATTAAT TACATGAGAA AAAGTAACTA   180

ATACATCC   188

(2) INFORMATION FOR SEQ ID NO:19:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 190 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

GAGAAAGAAA GAGATGTTTT ATTAGCATTT GTTACAGCAA CGGTGACGTG AAGGGTCGTC   60

CGTGCACAGC CACCCGAGCG GCAAGGCGTA GGCCAGAGCT GACACCCAGT ATTTACACGA   120

GTGCAGAACA GGATCACCCC GAACCTCAAA CAGAAGACTG AAAGTCACTT TACAAAAAGG   180

TAAATAAAAA   190

(2) INFORMATION FOR SEQ ID NO:20:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 200 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

GCTACGGTCG ACATCACCAT CTTTATCCCT TCCAGCCCTT TGCTGGGTCG CGGGCCTTGG   60

GAAGATGCCA AAGAGCCGAG CAGTGGTGGT GGCCAGCGGG CAGAGTGTCC CTGCTTGGGC   120

CAGGAAAGCT TTACCTTCTC TGAGCGCCTC TGCCTGAGAG ATCGATGGTC TGTGGCTCTA   180

GGAGACCACG TCTTGGAGTG   200

(2) INFORMATION FOR SEQ ID NO:21:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 165 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

CCTTCTTTAT TGAATGACTT TCAAGAGGTA ATTACAGTTG AAGGTGACAA GTTAGAAAGG   60

AGAGGTGCCA CTGAAGGCAT AAGGCTGCTT GTAGACCCGG CTCTAGACAA GTGGCAGGAG   120

AAGAAAGAGG GTTAAAAAAG GCATGAGCGT GCAGCCCACG GGGCA   165

(2) INFORMATION FOR SEQ ID NO:22:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 212 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

GGCAGCACTC CTATTAAAAC TGGAACCTAC TGAGGTTTCC TCGTGTAATT AGGGAACAGA   60

GAAACACGTT CCACGAGGGA GCCTCCAGGT CTAATTACCT GCAACCTCGC TGTACCTTGC   120

TGGCGAGGAG GGAGCCACCA ATAGCAATTA CTAACGAATG GCTGAATTTC CTTATAAGAC   180

CTAGGGAACC TGATGGGAAA CTGAATTGCT AA   212

(2) INFORMATION FOR SEQ ID NO:23:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 229 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

TTTTTTTTTT TTTAATTTTT TTTAACGTTT ATTTATTTTT GAGACAGAGA GAGACAGAGC   60

ATGAACGGGG GAGGGGCAGA GAGAGAGGGA GACACAGAAT CGGAAGCATG CTCCAGGCTC   120

TGAGCCCATC AGCCCAGAGC CCGACGCGGG CTCGAACTCA CGGACTGTGA GATCGTGACC   180

TGAGCCGAAG TCAGACGCCC AACCAACTGA GCCACCCAGG CGCACCATC   229

(2) INFORMATION FOR SEQ ID NO:24:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 226 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

CCAGGTGACA GGGAGCCTGC AGGGAGGGTC TGGGTGTTCC CAGGAGCCAG GGGAAGTGGG   60

AATGGTGCAG GCAGTATTGG AAGGAAGGCC AGTCAGTGGG ACTGGCAGCT CAGACAGGCA   120

ATATGGGGAA GCATTGGAGC TTGCAGTCTC CACTCTGGGG TTAGGGGTTT GCACACTCAG   180

CAATAAATAA CTGTGTCACA CCAAATCCTA AATATATCAC TACAAA   226

(2) INFORMATION FOR SEQ ID NO:25:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 165 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

GTGTTAAGTG GTCTTTATTG GGGTGTCACA TTAGGTTATC TTCTTCATTA TCAGTTCTTC   60

AGTTAATTGT ACAAGTATGA TAAGTTATTT TATATCTGAC GTGGGAATTT AAATGTAAAA   120

TAAATACAAA ATACATCTGT GGTTTAATGA ACACTCAATG AAGAC   165

(2) INFORMATION FOR SEQ ID NO:26:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 214 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

ACAACAACTG TTGCAGGTGC TTTTGTGTGG AGTGTGTGGA TCTGTTGGTG GGGCCGGGGG   60

GCCCAGGACT CAAGGAGGAC CCCTGGAACT GCTACATGTG CGGGCACAAG GGCACCTACG   120

GGCTGCTGCG GCGGCGGGAC GACTGGCCCT CGCGGCTGCA GATGTTCTTT GCCAATAACC   180

ACGACCAGGA GTTTGACCCT CCGAAGTTTA CCCA   214

(2) INFORMATION FOR SEQ ID NO:27:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 162 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

ACACAGAACA AGAAATTTTA TTATCTCGAA TGCTGGTGCA TAAGCAATAA CAAGCTCATC   60

AATTAGAGGA GGAGACAGAG GGAAACTTCA GATACTGATG AGGATTTCTG GGCAGGTTTA   120

AAACCTTTAA AGATTGAGGC CATAATTGTT CAGTCTTTTT TT   162

(2) INFORMATION FOR SEQ ID NO:28:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 187 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:28:

CCTTGCCAAG GCCGAGGCTC CACAGGAATC AGAGTTGGGA CGACNNNNGA AGGAAGCGTT   60

TGGCTTCACA TTCTAGAGAA AGAAGACCCT ACTGGGCTGC AGACCCCTCC AGGGCTGTAG   120

GAAAGCTGCT GGACCTCTTC TGCTTCTCCC CAACCACTCT GCCACTCTGC CAGTTACCAG   180

TCACCAG   187

(2) INFORMATION FOR SEQ ID NO:29:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 201 base pairs
        (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29:

TTCAGAATAC TGTTTTTTTT TTTTTTTTAA TTTGTTTTGG TTTGTTTTTG TTTTAATTTA   60

AAGAAAGGTA TTTTGCTTGC AGGAAAAATA CTCCAGATTC ATTTTAATGA GAATCTTTGA   120

AATGTATTTA TCTTTAGGGC ATTTGGGGCA ACTTTAATGC CTGTTGGCCT CCGGCCTTCC   180

TGGAAATAAA AGGTCCAACG G   201

(2) INFORMATION FOR SEQ ID NO:30:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 221 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

CCTGCCCCAC GCCATCCTGC GTCTGGACCT GGCTGGCCGG GACCTGACGG ACTACCTCAT   60

GAAGATCCTC ACAGAGCGCG GCTACAGCTT CACCACCACC GCCGAGCGGA AATTGTGCGT   120

GACATCAAGG AGAAGCTCTG CTACGTGGCC TTGGACTTCG AGCAGGAGAT GGCCACCGCC   180

GCGTCCTCGT CCTCCTGGAG AAGAGCTACG AGCTGCCCGA C   221

(2) INFORMATION FOR SEQ ID NO:31:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 182 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:31:

ATTGTGATAG AAGACCACGG TGGGTTCAAN CANGTTGAAG NAGTTCCGCN TTTCCCCTCC   60

GGGGGAAAGG TTGTCGATGT CTNTTGGTNN TAAGTANTCA CCCATNCATT GTTGACAAGG   120

NTCANTCCCG AAGGGTCATT CTTGAGTAGT AGACCAATAT TNTAAAAATA ATTTNAATCC   180

TT   182

(2) INFORMATION FOR SEQ ID NO:32:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 210 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:32:

AATTGAGAAA GACATAATGG TTATGGCATT GGCTTGAAAC CAGTTAAAGA GGGTTCGATT   60

CCTTCCTTTC TTATTTTAAT AGTACGTAAG TTGGCTCTTC AAATGTGTGG TACGGAGGAG   120

GACATCCATG CAATCATTCA AGATTAGTTG TGGTTAATTC TACTATGGCC ACTTCTCGCT   180

TGGATGCGAA AGCTTCTCAC ACTATGAAAA   210

(2) INFORMATION FOR SEQ ID NO:33:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 186 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:33:

ACGCTCGTTT TCCAAAGAGA AGAGCGTTGT TTAGAGTAGC GAAATTCGAA GGCTGCTTAG   60

GCGCATTGTA AAGCTGTTGG GGAAATAACT CCACAAGTTT CGTGAGTGGA AATGTAGTGC   120

TCGAAACACA TTCTGCTTTA AAAGGTTGTA ACAAATACAA ACAAATTTAA AAAAAGCTCT   180

CGAAAA   186

(2) INFORMATION FOR SEQ ID NO:34:

        (i) SEQUENCE CHARACTERISTICS:
             (A) LENGTH: 173 base pairs
             (B) TYPE: nucleic acid
             (C) STRANDEDNESS: single
             (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:34:

CTGGAGCGCA AGTACTCCGT GTGGATCGGT GGCTCCATCC CGGGCTTGGT GTCCCACCTT   60

CCACAAGTGT TGATCACACA AGCCGGAGTA CGCGCGCGGT TCGGCCCCCT TCATAGGCCA   120

CCGCAAAAAC TTTTAGGCGG GCTCTTACNT TAGAGGCGGT ACACACCTTC TTG   173

(2) INFORMATION FOR SEQ ID NO:35:

        (i) SEQUENCE CHARACTERISTICS:
             (A) LENGTH: 197 base pairs
             (B) TYPE: nucleic acid
             (C) STRANDEDNESS: single
             (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:35:

TGGGCATCAA ATGAAAGAGA TACTTGCAAA GGCTCTTGAG GGGCAGGGAA AGGAAAGGAG   60

GACTGTCTGC TTTGGACCCT AAACTGGACA GGGACTAGGT ATTTTTGATG TTCATAAGTT   120

GTCCTGCTCT AAGTTCATTT GAGTAGCAGA CCTGACAAGC ATTTGAGGTC AAAACCCTAC   180

CATGTGTAAA AAAAAAA   197

(2) INFORMATION FOR SEQ ID NO:36:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 146 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:36:

GTCTTGATAC AAAGCTTCTG TGCTAATCCA GACTATTTAG GCAGGGGCAA TAGGGTGTAA   60

AATGTATCTG CTCTCTTCAA ACGCGGCTAA NGNTCTAGTC CATGTCCCNC CNNGCAACCN   120

NCAANATCCC ACNAGGGGGN AGNTCG   146

(2) INFORMATION FOR SEQ ID NO:37:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 156 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:37:

CCCAGGTGAA CAGGAACAGG TTTTCTCATA AAAAACAACA AAAAATCCTT GCCATTCATT   60

TTCTTACTTG NATGTGGAAA AATAGATCCG CCTTTATTGN TGAATAGCCT TAAAACTTTT   120

GGAGAATATT CCTTAGNAAA TTAGGGGGGG NGGGGC   156

(2) INFORMATION FOR SEQ ID NO:38:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 216 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:38:

CATCTAGATA NTCTTGGNGA TTGGGGCCTC TAGNTGATTG CTCGAGCGGC CGCCAGTGTG   60

TTTTAAAGAC TGGCTCAGGG CCTGTGCGAG GTGCTGCTGG TGGTGACCAA GGAGGTGGAG   120

GAAAAGGGCT GCTGGNCTGC GGNACAGTAC TGACCCCGCG GAGGTAGTAG CAACCAGGTC   180

CACCGTACCC CTGCGAGTCC CCCGCTGCCA ATCCCC   216

(2) INFORMATION FOR SEQ ID NO:39:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 224 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:39:

CCACCAAGAA GCTGGACCTG TGGATGCTGC CTGAGACACT CATTATCCAC CTGAAGCGCT   60

TCTCTTACAC CAAGTTCTCC CGCGAGAAGC TGGATACCCT TGTGGAGTTT CCCATCCGGG   120

ACCTGGAACT TCTCCGAGTT TGGCATCAAG TCCGTAGGAA CGAGTCGGCT CCGGAGCTGT   180

ACAAATACGC ATCTCATCGN GGGNTNCCAT CNCATTNATG GGGG   224

(2) INFORMATION FOR SEQ ID NO:40:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 173 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:40:

GGCGAATTGG GCCCTCTAGA TGCATGCTCG AGCGGGCGCC AGTGTGCTCT AAAGCCAAAA   60

TATATTTGAG CCAAATGTTC CGAGGATGAG TCAGGCTGTC TTCGGGGGCA GNAAAGGCTT   120

CACACGGGAC AAGTGGATGG NTTGGAGGAA TGNATGNTCC GCAACCATGG GCT   173

(2) INFORMATION FOR SEQ ID NO:41:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 213 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:41:

CTGACTGGCC CAGAATTTTT GAATACTGGA GGCAGTCTCA TTGGCCTCCC TCATTAGACT   60

CCAGGATTCG GTCCAGCCCG AGACCACTGT GGGCTCCTAC CAGTCCAAAA GTCTAGGACC   120

GCTTGCAGAC CCAGGAAAGG AATTTTCTAG TGTTCTACAA AGGCCAATAG AGAGGGTGGG   180

AGTGGGTGGG GTGAGGACCG GTGGCGAGAG GGG   213

(2) INFORMATION FOR SEQ ID NO:42:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 195 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:42:

GCCAGATTTA CATAAGAACA TGCTTAACAG ACGATCTTTT AGCTGACGTC TTACCAGNAA   60

TCGCCCAAGT CCGCACGGTA AGTAAAGAGG AGGCCCGCCA GGTCAGAGTT TGCTTAGCAA   120

TAGGGTCAGG TCACTAAAAC TGTAAATCCA TTGCGAGAGG GGGACGCCTC CGCTCAAGCT   180

TGGCTGGGCT TCGGC   195

(2) INFORMATION FOR SEQ ID NO:43:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 303 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:43:

GTCAAAGAGA CCAAATCCCA TATCCTCATC TGATTCCTCC GACTCTTCCT TTGCTTCAAC   60

CTTGGCTGGG GCTGCAGCAG CAGCAGGTGC AGCAGTGGTG GCAGCGGCCA CGGGGGCAGC   120

AGCCACAAAT GCAGATGGGA TCAGCCAAGA AGGCCTTGGA CCTTTTCAGG CAAGTGGGGA   180

AGGTATAATC AGGTCTCCAC AGGACAAAGG CCAGGACCCG CTTATTTTCC ATTGGATGGA   240

TAGGAATGGG GGGCACTGNA TGCAAACAGG NCGGGGTTNA CCCTTTCTTG NAGGACCATT   300

TCA   303

(2) INFORMATION FOR SEQ ID NO:44:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 217 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:44:

GCGCAGGCAC AGCTGGTGAG GGGCGAGGCC GCAGACGCCA AGGTGGCCAC CATGGTCCGG   60

AGTGCCTGCA GGTAGTGGGC TTCGTCACGA GCTTCGTGGG TTGGATCGGC ATCATCGTCA   120

CCACGTCCAC CAACGACTGG GTGGTGACCT GCGGCTACAC CATCCCCACC TGCCGCAAGC   180

TGGACGAACT GGGCTCCAAG GGGCTGTGGG CAGACTC   217

(2) INFORMATION FOR SEQ ID NO:45:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 224 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:45:

CAAACCCATG CATACCACAT AGTCAACCCT AGCCCATGGC CACTTACAGG AGCCCTTTCA   60

GCCCTCTTAA TAACCTCAGG CCTGGCTATA TGATTCCACT ACAACTCAAC ACTGCTGTTA   120

ACCCTTGGAA TAACTACCAA CCTACTAACT ATATATCAAT GATGACGAGA CATTATCCGA   180

GAAAGCACAT TCCAAGGCCA TCATACACCT ATCGTTCAAA AAGG   224

(2) INFORMATION FOR SEQ ID NO:46:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 243 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:46:

GCGCCCGCCG CGTCGCGCCG CCTCACCGCC GTACCACCCG CCGCCTCCTC TGCAACCTCA   60

GCCCACCGGG GCACCCGGCC CAGGTCACTG GCGGCCCAGG CGCAGCTCCT GGAGGAGAAT   120

GACCAGCTCA TCCGCTGTAT CGTGGAGTAT CAGAACAAAG GCCGGGCGAA TGAGTGCGTC   180

CAGTACCAGC ATGTGTTACA CAGAAATCTC ATTTATTTGG CTACCATCGC AGATGCCAAC   240

CCC   243

(2) INFORMATION FOR SEQ ID NO:47:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 215 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:47:

AGACCAGCCG GTGACAACCA CTAATCAAGT TCCATAACTA TATAGCGCCG CAATTCCCAT   60

GGCCTCCTCA CTAAAGAACC CTGAGTCACC TGTATCATAA ATCACCCAAT CACCTGCACC   120

GTTAAACTTA AATACGACTT CTACCTCATC TTCCTTTAAA ATATAACAAG CAGTTAATAA   180

TTCTGCTAAC ACCCCCGTAA TAAACATTGC TAGTA   215

(2) INFORMATION FOR SEQ ID NO:48:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 288 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:48:

```
TGAGGTTGAT TATTGTGGTG GTATTGTTCA CTGTGTAGAA ATAGTAGGAG TAGATTTAAA      60

TAGATTGTTC AGTTTTTAAT ATTAGCCATA GAACTGGTTA GTATCTCAGT AGTTTCATGA     120

AAGCTTTTCC TGTATTCTAA TCTATTTTGA GAAATTTTCG TCCCTTTTTT TTAATTGTGT     180

CTTACAGTTC AAGTTTGTAG ATTTTAATAA GCAACAATTT TTAAAGATGC GGTAATCTTC     240

CAACTAATAT TTATCCATCT TTCATGGCCC CACAACTGCA TCTTTAAT                   288
```

(2) INFORMATION FOR SEQ ID NO:49:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 289 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:49:

```
CTAACTGCAT TCTCTCCTCG TTCATCCTTT GGGGCTGATT GATGAGCCCC TTATTTCTTA      60

TCTCTAAAAA TCAACAGCAA GGTCTACTTC ACATGGCCAC TCCAGTCCTT TGAGCTATAA     120

TCAGGATTAT ATAACTTACC CTCAAATCAA AAGTTAAGAA AAAGGAAGCC CATAAGCTAA     180

GGCACTGAAT CTTTTCCTGA CAATTTCTAG AGGTAGAATT TCATCATGCT GCAGAGAGAG     240

AGAGAGAGAG AGAGAGAGAG AAGGAGGGGA GGGAAGAGAA ATGAAAGAG                 289
```

(2) INFORMATION FOR SEQ ID NO:50:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 287 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:50:

ATAATGGTTA TGGCATTGGC TTGAAACCAG TTAAAGAGGG TTCGATTCCT TCCTTTCTTA   60

TTTTAATAGT ACGTAAGTTG GCTCTTCAAA TGTGTGGTAC GGAGGAGGAC ATCCATGCAA   120

TCATTCAAGA TTAGTTGTGG TTAATTCTAC TATGGCCACT TCTCGCTTGG ATGCGAAAGC   180

TTCTCACACT ATGAAAACTA TTAACATGAC TGCTGTTAAT GAGATGAAAG AGCCCATTGA   240

GGAAATCGTA TTTCAAGTTG TATATGCATC TGGATAGTCA GAATAAC   287

(2) INFORMATION FOR SEQ ID NO:51:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 276 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:51:

TGGTGACACA CGTCTTTCAG TCACCAGTGG AGATCACCAG GAGCATCAGC AGGAAGAGCC   60

AGTGGGCCCA CAAGCTTAGC AAGTTGATCA GGATAGGGTT ATTTGGTGGA TAGACCATGA   120

GTGTCAGGGA CCTCCCACTG GACACCACCC CAGAGGCTCA GGATGCTTTT CGAGGGAGGA   180

AAGGAGAAAG ACCTCTACTG AGGGAACAGC TGGCCGTGTG TGGTGGGCTG AGGTGACGTA   240

CAGGGGCAGA GCTTTCGAGG GATTTTCAGA TGATCC   276

(2) INFORMATION FOR SEQ ID NO:52:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 293 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:52:

TAAATAGAAA CGTATAGAAT AGTCAAACTA CGTCTACGAA GTGTCAATAT CAGGCGGCGG   60

CTTCAAATCC GAAGTGGTGA TTTGATGTAA AGTGATATTT TAGTTGGCGT AAGAAGCATA   120

CAATTAGGAA AGTAGAGCCA ATAATTACAT GTAGCCCATG GAATCCTGTG GCCATGAAGA   180

AGGTAGATCC GTATACTCCG TCCGAGATCG TGAATGATGT TTCATAGTAT TCTGGAGGCT   240

TGAAGGAGTG TAAAGTAGAC TCCTAAAGAG ATTGTAATAA ATAGTGCTTG AAG   293

(2) INFORMATION FOR SEQ ID NO:53:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 239 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:53:

GTTTTTGTTT TTAAAAATGA GTTCTTTTAA AACCATGTCA TACATTCCCC ATACTGATAT   60

CGCATGACCC NTTANAATAA AGGCAGGGGG NTTTACTAAT GGGGGGGCGG GCCANACCCN   120

CCATCGTTTC AGCCAGACAG TTCAACCCGG GGNNCCTTGT TCCTGCGGAC CTCCGGGGNA   180

NGCCTTTCCT TTTCCAAAAA GGGGGCCGNT CGGAGNATGN ATNTNGAGGG CCCAATTAG   239

(2) INFORMATION FOR SEQ ID NO:54:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 255 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:54:

GCGCTCTGAC CAGGCATCAG TTTTCCTGGT GCTCTCTGGG CTAGCCTGGT GATGTAGGGC   60

CAGGCAGACA GGCAGGCAGG GGCTGAACAG GGTTTCTCTG CTCCAGGAAG ACCAAACACA   120

GAGGACCTTA CAGGCAGGAA CCCCACAGAC TGTCCCAACC CACACACTCC ACCACCTGTG   180

CCCTGTCCCA TGTCTGAGCC AAGGCCCTGA GGTAGAAAGT CACCTGATCC TGTATCTCCA   240

TAGGGGCCTG ACTTT   255

(2) INFORMATION FOR SEQ ID NO:55:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 230 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

CCCNAGNGCA CACNGGNGGC CNTAANNAGN GGNTCCNAGC NCGGNACCNA GNTTGAGGCA   60

TAGCTTNAGN ATTCNATAGT GNANCACAAA TAGCNTGGGG NAATCANGGN CAAAGCCNTT   120

TCCCGTGNGA AATTGTNATC CNNTCANAAT TCCNCACAAN ATACGGGCCN GAAGCATAAA   180

GNGTAAAGCC CGGGGGGCCC AANGNGGGNG CNAACTCACA TTTAATNGCG   230

(2) INFORMATION FOR SEQ ID NO:56:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 257 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:56:

```
GGGAAATGTA GTTTGGATGC AAAGCTGATT AAATTGGATC AAGAAAAATT GGAATTAAAT      60

ACATACAATA ATGCATGCAT TTATGGTTTC GATTTTTATA TATCCTTAGC TAGTTGGAAA     120

TGATGATTCC CACAACAAGC ATAACTCAGC TTGTTTCTGC TTACTGAGTA CTTTCTCCTA     180

TGGTATATGT TGATAACATT TCTTCCATTA TGTATGTTGC ATACGAGAGT TACAGTTACT     240

GTGGGAATCA TAATTTT                                                    257
```

(2) INFORMATION FOR SEQ ID NO:57:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 280 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:57:

```
GTCACCATTA AATGTCTGAA TTTTAAACAG ATTCTTGGAC TGGTGGCTCA TATCCATCAG      60

CTCGCTCAAC TTTAGCACCG GTCTCATCCC CAGTAGCTTT TCCAGAACTG CTACCTTCAC     120

CATGAAGCTC CATGAGCTTT CCCAATTCAA ACTTGGGCTT CTTCAGCATT TTTACTTTTC     180

TAACGAAGTC ATCATGAAGT GGATAAATAG ACTGACAAGC CTTCTCTATG TCTTTTCCGA     240

TCTGTCTGGA ATCAATTTAT TGACAACTTC TTTCAAGTCA                           280
```

(2) INFORMATION FOR SEQ ID NO:58:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 281 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:

TCATAGCATT TCTTCTGCTT CTCCTGGATT ATGTGCTACA AATGTGCTTT GGCTTTAGAA   60

AGGGATGGAT GAGAAGACAG AGCTGAGATC AACCTGGGTA GAAGCAGAAA GTTAAACCCT   120

TTAAAAGTGC TGAACACAGA TTCGAATCCA AATGGTTCAA GCAGCCATGA AATCGCTCTT   180

CATGAAGTGG GCTTAATTCT CTAGTTTAAG TTCTTTTGAT GGAATGAATT AATTAATGTG   240

TCAGGTGGCT TATTTGTGGA TGCATGATTG ATGATGTCAT T   281

(2) INFORMATION FOR SEQ ID NO:59:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 283 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:59:

CGGACCCGGA CAGAAAGCAA ATCCTGGAGC GCACCCAGCG TGCGGTGGGG CTGGCCGCAG   60

AGCCCCTGGA GAGAGCCGTG CGGGNCGGCC TCCCGGCAGA GGAGGCCGCC CGCTGCGCAG   120

AGGTGTTGTT GGAAGAAGCG AAAGATTTGC TCTCCGACTG GTTGGACTCC ACCCTGGGCA   180

GCGAAGTTAC GGACAATTCT ATTTTCTCCA AACTGCCCAA GTTCTGGGAA GAAGAATTCC   240

ACAGAGACAT GGAAACCCTG AACGTTCTCC CTCCGGACGT CCT   283

(2) INFORMATION FOR SEQ ID NO:60:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 320 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:

CGAATCTGTT GTAGCAGTTT CAAATGATTG TGTGGATATT GGATGTTTAA CCTTTACCAT   60

TTGCTTTGTA TCGACACATT TTTCATTTTA AGTGTTAACT CATGTACTGT TTACTTTAGG   120

AATAATGCAA ATCCAACCTT CATCCAGTGA TGAGAATAGC AGTATGATAG GAATTTGCTC   180

AATGTGCTTT AAATGAGTAA TTGCTTTATC TTTTTTAGTA TCTGATAGAC TTTGCATGAC   240

ACGGTACACT CCTAATTATG CATTCTTTAG TTTCCAAATC TTAACCTAAG ACATTCTATA   300

TTAACTGATG GGTAGCTGAG   320

(2) INFORMATION FOR SEQ ID NO:61:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 303 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:61:

GGTTTTGCAG GGGCAAGTGG GGCTGGGCCC CGCTGGGTGA GAACCCCGCC GCACACTGCA   60

GTGGGTGCCT GGACCCCGCA GCAGCGCTGA GCAGACGGTG GACTCTGGGC TGTGGCCTTT   120

CTTGGGCCCA CTGGGGCCGG CTCTTGTATA TAGCTGGGGC TCATGGGCAT GACCCCTTTT   180

TTAAAACCTT GGGTCTTAGG ACACCTGGGT TTACCCTCAA CTAAGGGAGG GTGGGAAAGG   240

GATTTACTTG GGGTCTCAAT AATTTACGAT ATCCCTTTAA GGTTGACCAT TAAAACTGTC   300

CCA   303

(2) INFORMATION FOR SEQ ID NO:62:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 276 base pairs
        (B) TYPE: nucleic acid

    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:62:

CCTCTTAATA	ACCTCAGGCC	TGGCTATATG	ATTCCACTAC	AACTCAACAC	TGCTGTTAAC	60
CCTTGGAATA	ACTACCAACC	TACTAACTAT	ATATCAATGA	TGACGAGACA	TTATCCGAGA	120
AAGCACATTC	CAAGGCCATC	ATACACCTAT	CGTTCAAAAA	GGCCTTCGAT	ACGGAATAAT	180
CCTCTTTATC	ATCTCAGAGG	TATTCTTTTT	CGCAGGCTTT	CTTCTGGGCC	TTTGTTACCA	240
CTCAAGCCTA	GCCCCAACCC	CCCGTAGCTT	AGGGGG			276

(2) INFORMATION FOR SEQ ID NO:63:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 301 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:

CCAGTACTTT	GCTTTTGTAG	AAATAAATGT	GCATTTCTTT	CATTAGTTTT	GGGATGTCCT	60
CGTTGACACT	TGTATAATAA	ATACCCTCTT	GATATCATTT	TCAGCTTTTA	TCACTAGATA	120
CTGGACGTGA	TTAGAATGTC	GTTGAAGGTT	TCTGCACTTT	TACTTGCCTT	AGATGATTAT	180
TTTGAGTTGT	CAAAGTCAGA	TCTTTGCAGT	TTTCAGGGGG	AACATAGTTC	TCAAAGTCAT	240
TTACTCATCT	TTTTCTAATC	TCCCATGTTT	ATTTTTAATC	CTAAGGATTT	CCCCCCTGTT	300
T						301

(2) INFORMATION FOR SEQ ID NO:64:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 300 base pairs
    (B) TYPE: nucleic acid
    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:64:

```
CTTTAGAGAC ATCTACATTA CTTATAAAGC TAATCAGGAA GTTAGCACAA CACACTCTTT    60

TTTAAATGGT TAAGATGGGC ACTTTTATTT CTTATATTTT CCTATCCAGA GAAAACATAG   120

AAAAATTTAG ACATTGGAGA AATAATAAGA ATGAAAAGTG GTGCCTGGGT GGCTCAGTTG   180

GTTAAGTATC TGACTTCAGC TCAGGTCATT ATCTCATAGT TTTGTTAAGT TCGAGGCCCC   240

ATTATNCAGG GCTNCCGNTG GCCTAACAGC TTNCNGAGGT CNTNGGGGNC CTGCTTTCCA   300
```


(2) INFORMATION FOR SEQ ID NO:65:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 322 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:65:

```
CGGGGGAGGG GCAGAGAGAG AGGGAGACAC AGAATCGGAA ACAGGCTCCA GGCTCCGAGC    60

CATCAGCCCA GAGCCCGACG CAGGGCTCGA ACTCACAGAC CGCAAGATCG TGACCTGGCT   120

CAAGTCGGAC GCTTAACCAA CTGCGNCACC CAGGCGCCCC GAAAGCTCTC AGTTTTTACC   180

CATTGCGGTT GATATGAGCT TTGGGTTTTT CATATATGGC TTTTACGGAT GCTTAGGTAT   240

GTTCCTTGCT TATCCCGAAT TTCTTTGAGG GGTTTTTAAT TTAAGGAAAG GGGTGATTGG   300
```

TAATTTTTTG TCAAAATTGC CT   322

(2) INFORMATION FOR SEQ ID NO:66:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 283 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:

CCTAGCCCAT GGCCACTTAC AGGAGCCCTT TCAGCCCTCT TAATAACCTC AGGCCTGGCT   60

ATATGATTCC ACTACAACTC AACACTGCTG TTAACCCTTG GAATAACTAC CAACCTACTA   120

ACTATATATC AATGATGACG GGACATTATC CGGGAAAGCA CATTCCAAGG CCATCATACA   180

CCTATCGTTC AAAAAGGCCT TCGGATACGG GGATTAATCC TCTTTTTCAT TCTCAGGAAG   240

AATTCTTTTT TGGCAGGGGT TTTTTTTCTG GGGGCCTTTT TTT   283

(2) INFORMATION FOR SEQ ID NO:67:

    (i) SEQUENCE CHARACTERISTICS:
       (A) LENGTH: 312 base pairs
       (B) TYPE: nucleic acid
       (C) STRANDEDNESS: single
       (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:67:

ACGAAGTGTC AATATCAGGC GGCGGCTTCA AATCCGAAGT GGTGATTTGA TGTAAAGTGA   60

TATTTTAGTT GGCGTAAGAA GCATACAATT AGGAAAGTAG AGCCACTAAT TACATGTAGC   120

CCATGGAATC CTGTGGCCAT GAAGAAGGTA GATCCCTATA CTCCGTCCGC GATCGTGAAT   180

GATGTTTCAT AGTATTCGGA GGCTTTAAGG AGTGTAAAGT AGACTCCTAA TGAGATTGTA   240

ATAAATAAGT GCTTGTAGCA TGTGTTTTCG GATTTCCCTC CATCAAACTT GTGGTGAGCT   300

CCAGGGCGAT TG   312

(2) INFORMATION FOR SEQ ID NO:68:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 309 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:68:

TTTTTTTTTA CTGGGGTGGG GATGGGAAGC CCTCATGCCT TTATGGGGCA GCATTTTAAA   60

CCTTTGCCAA AATCGCCAGT GGGACCTACA CGTGCTTCCG CGCCATCCTG TTGAAGACAA   120

ACACCTCTCA GCTGTTTTAA TCTTTAATCT TTTCTGTGTG TGTTTGTGTG TGTGTGTGTG   180

TGTGTGTGTG TGTGTGTGAC CTGAGTTTTT GATGAGATAC TTGATTTGCA TCAAAATCCC   240

GTCACTTTCC AGCTTTTGTT TGGTCATCAA AAATCATTAA AAGGAGCTTG TAAAATTTTA   300

ACCAGGGTT   309

(2) INFORMATION FOR SEQ ID NO:69:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 271 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:

TGGCTGTCAT CTGGAGGCTT CTGCCTCAGC TCCTGAAGGC TGCTCTCATT CCTTCTCGCG   60

TGCTCCCGTC CATCTTCAAA TTCTCAATGG CCCATCTTCT CACGCCTCCC ATCCCTCTGC   120

CTTCTTCCTC TGTTTTAAGG TTCATGTGAT TAGATCAAGC CCACTGATCA AGTCTCCCTA   180

TTTTAAGGTC AGTTCTGCCA TAGAACATAA CATAATCACA GGAGTGACTG CACAGGCACG   240

GGTTCCTGGG ATTTGGGCAT GGAGTTGGGG G   271

(2) INFORMATION FOR SEQ ID NO:70:

     (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 311 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:70:

ACGCTAAGGA CACCTTTTTT GTTTCTGCAC CTGATGTTAT AGATGGCAAC ACCAAGTTCT   60

AGAGCAATTG AGAGACTTGT CCAAGGTCAC AGGATGGCTT CACTTCAGCC AACTATATAG   120

TTGCAGTGAC AGTATGTGTG CTCTCTGAGG GGTTACTGAA AACCCCTGTC AAATATTTCC   180

TGTGGACACT CAGCCTTTAA ACTCCCAAGC CTCATGAAGA ACTTATTGGG GGGGGGGGGC   240

GCCTAAATAA TTCAGTCGGT TGAGCGTCTG ACTTCGGCTC AGGTCATGAT CTCACAGCTC   300

GTGAGTTCGA G   311

(2) INFORMATION FOR SEQ ID NO:71:

     (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 298 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:71:

TGCCTAGAAT CATTGTTCTG TGTGGAGGTG TTTTGTTTTG ATAGAAACCG GCCAGTCTTG   60

AACCAGAACG AATGTTTCCC TTGTCTAATG TTCTCACAGA GAAATGGACA AGCGTTTTAC   120

AGGTATAAAA GGCACAAGGA GGAACTTATT TTTGGTCAGA GCATTGGGGA AGTAAATCAC   180

AAGGCAAAAT AGATCTGTTT GTTGTTTGTT GCGGGAGGAA GTATTAATAA GCAAATCAAA   240

TGCCTTGTAT GATCTCCAGT GTTATAATTA TAGATCCTAA CTTTGCAAAT ACATGTAG   298

(2) INFORMATION FOR SEQ ID NO:72:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 255 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:72:

ACTGGACCAA AATTGGTGTT TGTTTTAACC TTGACTCTTC TTTTGATTAT TTCTAATGCT   60

ACAAGAATGC TGTAAAGTGT CTTCTACAAT GATGTAGCCC TGACAAGACA TGTTTGGCAG   120

TGTATAAAAA TTAGGTAGGA TTGTGCACTG ATTCGACCAT TGTGAAATCT TTTCTCAGTG   180

GTAAGTGCAT TCTCTAATAA AATTTATGNA GGTGAAACAA TCTTTGGNGC AATGGACCAC   240

TCATGCATCC ATCCC   255

(2) INFORMATION FOR SEQ ID NO:73:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 271 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:73:

AACAGCCCCA CTATCAGCAC CCAAAGCTGA AATTCTTTCT TAAACTATTC CTTGCCAATA   60

CCAGNAAAGC AACCCCATAA CTTTCATAAT TCATATATTG CATATACCCA TACTGTGGCT   120

TGGCCAGTAT GTCCTTATTT CCCACAAAAA AACCAAGTAA NAAACCCCAA GTACCACAAC   180

CCAAAACACA CAATGTAAAA TCACTCTATT AACCACANAC CCACCCCAGG TTGGGTATTA   240

TACACCCATG GTNCATAAGG ACATACTATG T   271

(2) INFORMATION FOR SEQ ID NO:74:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 336 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:74:

CGCTGCATCT TTTTCTATGC TCTCCCTGCT GGCGCTGATG GGAGATACAG ACAGCAAAAC   60

GGACAGCTCG TNTCATGATC GACTCGGACC CTCTGCGNCT GCATGAGGCA CCACTATGTT   120

GNATTCTATC AGCTCACCCG TTGNTACAAG TGTAGNCTCA AAGGAAGAAT AGTGGGAGTC   180

TTCTGTGAGA CCTATCTGAA TCCCCGNNTG GCCCTGAGNT TCCAGAGGGN CCTGGTCGTC   240

CCATCGCCTA GCAGGGTTCA AGNAAAGGGG CCCGCNCATG GCAGTCCTTG GNCAGNAGNA   300

ANGGANTTGG NCCCAACCCC NTTGGTTCCC AACCCA   336

(2) INFORMATION FOR SEQ ID NO:75:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 337 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:75:

CGGCCACTGG TCATCAGATG AGCATTTTGT GTGTTTGAAG CTAGTAGCTA TAGAAAAGAT   60

AGTTGTGCCC TGATAAAGTA GCTTTTTAAA AAAAGTTTGG GTTAGTTTCA CATTCAAGGG   120

GCTTATGAAG AGATGCAAGT CAGGATACAT AGGCTTGATT CTTGGCAGCT TAATGAGTCT   180

TCACGAGGCA CTGAAGGTGG AAGGGTGGAG TCCAGTAACT GCTCTGGAGC AGTGACTTCC   240

CAATTCTGAC GATCTCAACA TTGTTTCTGA AGGACGTTGC CATCTTGGAC ACAGGAACGT   300

GCTGTGGGGT GCCTGGCAGT GTCTGAGTAG TAGACTT   337

(2) INFORMATION FOR SEQ ID NO:76:

     (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 252 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:76:

CGCTGCATCT TTTTCTATGC TCTCCCTGCT GGCGCTGATG GGAGATACAG ACAGCAAAAC   60

GGACAGCTCG TTTCATGATC GACTCGGGAC CCTCTGTCGT CTGCATGNAG GGCACCACCT   120

ACTGTTGGAT TCTTATCAGN NCAACCCGCC CNGNTGCAAA GATGNTAGAC TCCANAAGAG   180

NAAGNAATNA GTTGGGGNAG GTCNTTTCCT GCTGNAGAAC CTAATTCNTT GCAATTCCCC   240

CCCCGCCCCC GG   252

(2) INFORMATION FOR SEQ ID NO:77:

     (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 266 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:77:

ATTACAACAT CTAGAAGGCT TTCATCATAC GATACAAAGC TCAGTTACAA ATGTGCATCC   60

TAGTATTTGG AAAACTAATA CCTCTCTTAA TGTAACATGA AAAAATTATT TCTTATGTCC   120

TTTTTCAGGA CTCCTCTTTT ATTTTTTGGT ATTTTATCTT TTATGGCCAC CTTGGCCTTC   180

TGGCCAATGT GTTATGCAGT GAAAATGCTT GTGGGCAGAG GATGCCCTAC AGCGCAAAAA   240

TACCGCGCAC ATGGGTTTCC CAGGTA   266

(2) INFORMATION FOR SEQ ID NO:78:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 290 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:78:

TTTTGTTTTA TCCGTTTATT AGTACATGGG CGTCGGGAGG ATGATTTACT CATCATCTTG   60

TATTACCAGA GGTAGAGCAT AATGCCATCT GCTAGGGATC CAGTTCGACA GCACCTCAAA   120

ACACTAGTCT GCTCACTCAC CCTATAGGGC TTGNTCATTC CACTTGGGAT GGAAGACAAC   180

AGTGCCTTTA ATGCAAATGG CCCCCAGGCA AGGAATTAAC CATTGGCTTC ATGGCTCATG   240

AAGGAATACA GNCNNATTTA ANGCGNGGCA GGCAGGAAGC CTTTGNGCTA   290

(2) INFORMATION FOR SEQ ID NO:79:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 280 base pairs
            (B) TYPE: nucleic acid

```
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear
```

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:79:

CTAAAGTGGC TGAACAGTAT ACCCACCCCT AGCCGGCAAC CTGGCTCATG CAGGAGCATC   60

CGTAGACCTA ACTATTTTTT CACTACACCT GGCAGGTGTC CTCCTCAATC TTGGGTGCTA   120

TTAATTTCAT TACTACTATT ATTAATATAA AACCTCCTGC CATGTCCCAA TATCAAACAC   180

CTCTATTTGT CTGATCAGTC TTAATCACTG CTGTCTTACT ACTTCTATCA CTTCCAGTCT   240

TAGCAGCGGG AATCACTATA TTATTAACAG ATCGAAACCT   280

(2) INFORMATION FOR SEQ ID NO:80:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 375 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:80:

GCCGGGAGCC GGCCTTTGGG CCGNGGGCGG AGAGGCCCCC GGACGGTCGA GTGCTTCTCC   60

TGACTGGTGC GAGAAGAACA TTTTCTATAT ACTTCCAGGT GCTTTTATAT TCCTTTCGAG   120

AAGAAAATAA AATTATGAAC TCAGGATTTT GCAAGTATTC TGTGTTTCTC CTGGAGTAGG   180

TAGTCCTTCT TCTTTTACCC AGCCACTTTC CCTATTCTTG AAATGTGGAT CTCTCTTCTC   240

TACATGTTTT ACCTCCATGA TTTGGATTGG AAAAAGCTGC TTTTCTTTTG GTTCCACTTT   300

TCAGATTCAA CATAGAGAAG CTCCTAGGAT GCAGTCGTCT TTCTGAAGCG CTTCCAGGGA   360

AGAAAGAAAG AAACT   375

(2) INFORMATION FOR SEQ ID NO:81:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 297 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:81:

```
AGGTCTTAAN CCCAACCCCG TCCCACCCAC AGGGTNCCAG CGTGGTGACT ACAGGCGACC      60

CTCCCTATGT CGGGTCTAGA ACGCCCCCAG CTGGAACGAA GGGAAGAAGC TAATTACAGT     120

GTCTTCCTTT GCACTGACCN NCCCCCCCCC CGCCCCCCCG CCACCAGTTC AGTCCAGGAG     180

GGGACTTGTT AGCCCGTAGC CCATCTTCCC CACTATCCTG GCGTGTTGGG CTCGTGAATG     240

CCTCCTAGCC AAATCACTAG AGTGCAGTGA CCCCAGCCTC CTTCCTGTGC CAAGATG       297
```

(2) INFORMATION FOR SEQ ID NO:82:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 361 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:82:

```
GCAACAAGGA ATGAGACCCC CAATGCCGCC TCATGGTCAG TACGGTGGTC ATCATCAAGG      60

CATGCCAGGT TACCTTCCTG GTGCTATGCC ACCGTATGGG CAGGGACCGC CAATGGTACC     120

CCCTTACCAA GGTGGGCCTC CTCGACCTCC GATGGGAATG AGACCTCCTG TAATGTCGCA     180

AGGTGGCCGT TACTGATCTT ACTTCATCCA ATCTAATAGG TTTTGAGATT AAACCTTTTC     240

TCAACTTGTG CTGGTTTATA TAGCCAAGCT TCCGTCAATA AGGCTTTATT GTTGACTTTA     300
```

ACAAACATTA TATTACCACA TACCAGGGAC TATTGGACAA TTATTTTACA AGGGGAAAAT   360

T   361

(2) INFORMATION FOR SEQ ID NO:83:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 380 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:83:

CCTGGCTGCC TGTGCCTCAA CCCCACTCCC AGGGAGACCA AAAGCCTTCA TACATCTAAA   60

ATTGGGGGGG GGGGGGGGGA CAAAAAAGGG GGCCCACGAT GGCAGACCAT TCGAAATAAA   120

ACAAAAAGAC CAAGTTTTAA GGCGAGAGTT TAAAAAAAAT TTGGACTACA TAATTTACAC   180

CAAGGCAATG TTATCACCCT GCGCCTGTTT GGACTTGGGC GGGGACTGGC CCTTCTCCTC   240

AGGGGGAAAT GGGGTGGCTT TTGGGAAGGC AAGGGACTTC CTGTAACAAT GCATCTCAGG   300

GTATTTGGAA TGACTATTAA AAAAAAAGG GCCAATGTTA CAGTCAAGGT CCTGGGCCCA   360

ACCTTGGAAC TTTTGGGGGT   380

(2) INFORMATION FOR SEQ ID NO:84:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 392 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:84:

CCCAAACATC TACAAACACA ACTAACACCA GAAAATAAAA CAAAACATTT AGTCACCTTA   60

TAAAAGTATA GGAGATAGAA ATTTAACTTG GCGCTATAGA GAAAGTACCG CAAGGGAAAG   120

ATGAAAGATA AAATTAAAAG CACCACACAG CAAAGATTAC CCCTTGTACC TTTTGCATAA   180

TGAGTTAGCT AGAACAACCT AACAAAGAGA ACTTCAGCTA GGCCCCCCGA AACCAGACGA   240

GCTACCCATG TACAATCTAT TTCAGGGGTG AAACTCCGTC TATGTTGCAA AATTAGTGAG   300

AAGGTTTTTG GGTAGAGGTG AAAAGCCTAT CGGGCCTGGT GGTAGCTGGT TGCCCCGAAC   360

CGGATTCTTA GTTTCACCTT TTAAACTTTC CT   392

(2) INFORMATION FOR SEQ ID NO:85:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 307 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:85:

GCGGAAGCAG TGATCCTCCA GCCTGCAGAG GCCCCCTTCC CCAGCCTGGC CCAGCTCCGG   60

CCCGGCCCCG GGCTGGACTC CTCCTACACG ATTTATTTGA CGTTTTATTT TGGTTTCCCC   120

CACACCCCCT CAATCTGTCG GGGAGCCCCT GCCCTTCATC TTGCTCCCTT GGCCAGGAGT   180

GAGTGACCCA TGGCCTTGGC GAAATTGTCC TCCTCTTCTC CCCTCGCACT ACAGTCCTGG   240

TCGGGGAGAG GGTGGCGGGT GCTGCTTGTG GTTTAGTGGG TTTTGTTTGG TTTTTTGTTT   300

TCTTTCT   307

(2) INFORMATION FOR SEQ ID NO:86:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 390 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:86:

AAAGGGTGGG GCANTTGATG CTGGTTTCTT CCTCTGCGTT TTCCGTAATT CCTTCTTACT   60

AGGGCTTTAT AATTCTAATT TTTCTTGGTT AAGTAGTAAT ATAAAACACA ATCAGGAACA   120

CTCTTTCTTT CCAAGTAGGA TGCAATTAGT CCAAAGTTTT TTGGATGCTG GATAAACTTG   180

TCCTTAAAGA TCTCCTTCTC GTGGTCAGTC CAAACATTCA TAAACTGCCT ATCTTTATAA   240

ACTTTCATAG GATCTTCCAT GAGTCCATTC ATGTTGATGA ATTTGACTCG TCTCTGTTCT   300

GCATCAAACA TCATAGGTGG GATCACAGAG AGTTGCCGCA TTTGTTTCTC ATTATTTCTC   360

CTTCTCAGAG AGCCCATCAA TAATTTTCAG   390

(2) INFORMATION FOR SEQ ID NO:87:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 504 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:87:

GTTTCCAGAA ATTCGAAAAC AAAGAGAACA ACAAGAAAGG TTTCAGCGAG TTGGGCAGAG   60

GGGAGCTGGT CTTTCAGCCA CGATTGCTAG GAGCGAGCAT GAGATTTCTG AAATTATTGA   120

TGGGCTCTCT GAGCAGGAGA ATAATGAGAA ACAAATGCGG CAACTCTCTG TGATCCCACC   180

TATGATGTTT GATGCAGAAC AGAGACGAGT CAAATTCATC AACATGAATG GACTCATGGA   240

AGATCCTATG GAAAGTTTAT AAAAGATAGG CAGTTTATGA ATGTTTGGGA CTGACCACGA   300

GAAGGAGATC TTTAAGGACA AGTTTATCCA GCATCCAAAA AACTTTGGGC TAATTGCATC   360

CTACTTGGGA AAGAAAGGGT GTTCCTGATT GTGTTTTATA TTACTACTTA ACCCAGGAAA   420

ATGGGGATTA TTAAAGGCCT AGTAAGGAGG GATTTACGGG AAACCGCAGA GGAAGGAACC   480

CGCAGGCAAT TGCCCCCCCT TTGG   504

(2) INFORMATION FOR SEQ ID NO:88:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 444 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:88:

CCTACCCGGT TTTGGGATAA TCTCACATAT TGTTACCTAC TATTCAGGTA AAAAAGAACC   60

CTTTGGCTAC ATGGGAATAG TTTGAGCCAT GATATCAATC GGCTTCCTGG GCTTTATCGT   120

ATGAGCCCAT CACATGTTTA CTGTAGGAAT GGATGTAGAC ACACGAGCAT ACTTTACATC   180

AGCCACTATA ATTATTGCCA TTCCTACCGG GGTGAAAGTA TTTAGTTGAC TGGCTACTCT   240

TCATGGAGGT AATATTAAAT GGTCCCCTGC TATATTATGA GCCTTAGGCT TTTATTTTCC   300

CATTTACCGT AGGAGGGCCT AACGGGGATT GTACTAGCAA ACTCTTCACT AGACAATGTT   360

CTTCACGGCA CATATTACGT GGGGGGCCAC TGTCACTATG GCTTGTCAAT AGGGGCAGTA   420

TTCGTATCAT AGGGGGGTTC GTCC   444

(2) INFORMATION FOR SEQ ID NO:89:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 421 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:89:

```
GCAATCCTGG CCTGGGGGCC TGAGGCCCTT CCCCTGCTCC AGGCTGTCAT CTCCTGCCTC       60

CTCTCCTCCG GCCTCCTCAG TTTTGCCAAC TGCAATTCAT TTGAGTTACT GTTTATGCTA      120

AGCATGTACT CCTGACTTGT CACTGACTTT CCTCTGGAGC AGGTGGCTAG AAAAAGAGGC      180

TATGGGTGGG GGAAAAAAAT GTTCCTGTTC TCACTTGTAA GGCTGGTTTT TGGCTTTTCT      240

GCCATGGGAT TCTCCCCCTG ACCTCTCCCC TCAGCAATTC CTGCAAAGGG TTAAAAATTT      300

AACTGGTTTT TNAACTACTG ATGGACTTAA ACAACACAAA GGATGCTGGG ATGCTAACTT      360

GGTTAACTAA ACCATCAAGG TTGTACCAAG TTTTGGATTG GTAACTGGTN AAATACAAGT      420

A                                                                      421
```

(2) INFORMATION FOR SEQ ID NO:90:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 406 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:90:

```
CGTATGAGGC AGTCCCCTGC TCGCCCCATC CCCCACTGTC AGGTCTATGG GTCCGTGGGC       60

CAGAATGGGG TGGAATTGGG TTGAGGGAGG GACAGCCCTG GCTGACAATG ATATTGGTGT      120

AATCAACATT AACCGAGCCG GCTTCAGCTT ACCTCAACCC GGGCAGGACA CCACCACCTT      180

GAGAAACCAC AAGCTGGAGC GACCCTCAGG CCCTGCAGGC CTTGCAAACA GCCCTGGGTG      240

GACCCCACAC CAGTCCCTGT TAGCCAGCTA GGCCCAGTCT TCCTTCAGCA CCACACTTTT      300

ATCCTGGGCA GGTTTCTGTC AGGTGGAAGC TGGTAAAAGC GGGTCCCAGC CAAGGGCTTC      360

AGGTTCAGCG CCAGCCAGTA ACTTCAATTC TTAACGGTGG GCAGGA                     406
```

(2) INFORMATION FOR SEQ ID NO:91:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 363 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:91:

```
GCCACCTGAC CCTCCTAACC CATGGCTGTC TGATGATACT ACTTTCTGGG AACTTGNAAG      60

CAAGCAAAGA ACCAAGTCAG CAGAGGGTAA AACGATGGGG TTTTGGCATG GATGAAGCAT     120

TGAAAGACCC AGTTGGGAGA GAACAGTTTC TTAAATTTCT AGAGTCAGAA TTCAGCTCAG     180

AAAATTTAAG ATTCTGGCTA GNCAGTGGAA GNACCTGAAA GNAAAAGGTC TAATNAGGAG     240

AAAGTTCCCT TTCCCGGAGA TTCAGGGAAA ATATGGGCAA AGNAATTTTC TTGGGCTCCC     300

TGGGAGGCTT CCCCAGNTGC CCAATCCAAA CCTTGGGGTT TTCCTNAAGG AGGCTNATGG     360

ATT                                                                  363
```

(2) INFORMATION FOR SEQ ID NO:92:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 193 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:92:

```
GAGAAAGACA TAATGGTTAT GGCATTGGCT TGAAACCAGT TAAAGAGGGT TCGATTCCTT      60

CCTTTCTTAT TTTAATAGTA CGTAAGTTGG CTCTTCAAAT GTGTGGTACG GAGGAGGACA     120

TCCATGCAAT CATTCAAGAT TAGTTGTGGT TAATTCTACT ATGGCCACTT CTCGCTTGGA     180
```

TGGCAAAGCT TCT   193

(2) INFORMATION FOR SEQ ID NO:93:

     (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 266 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:93:

CCGCCAGTGT GCTCTAAAGT GTGGTACCCT GGTGGAGACC TGGCCAAAGT ACAGCGAGCT   60

GTGTGCATGC TGAGCAACAC CACAGCCATT GCTGAGGCCT GGGCTCGCCT GGACCACAAG   120

TTTGACCTGA TGTATGCCAA GCGTGCCTTT GTTCACTGGT ATGTGGGTGA GGGCATGGAG   180

GAAGGAGAGT TTTCTGAGGC CCGTGAGACA TGGCTGCCCG TGAGACATGG CTGCCCTTGA   240

GAAGGATTAT AGGAGGTTGG TGTGGA   266

(2) INFORMATION FOR SEQ ID NO:94:

     (i) SEQUENCE CHARACTERISTICS:
         (A) LENGTH: 251 base pairs
         (B) TYPE: nucleic acid
         (C) STRANDEDNESS: single
         (D) TOPOLOGY: linear

     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:94:

TCTTCTCCCA AAAACACTAA TCCATGTCCG TAACCCACTC AGCCTCCAGA CCCCAGAGGC   60

TCTCCCCCAC CCAGCTGCCC ACCTCTAAAG AGGATTCAAG GGGCTATAGT GTCACCCAAC   120

CTCATTTGCT GGACCAAATC TGGAGAACCC TTGAGCTAGG TGGCCCATGG GGTTGTCCCC   180

AGGTGGGGGA GCAGGGGAGA GAAAATGGTA GCCATTTTTA CATTGTTTTG TATAGTATTT   240

ATTGATTCAG G   251

(2) INFORMATION FOR SEQ ID NO:95:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 188 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:95:

GTCAGACACA ACTTTCTGAA TCCTCTNAGG ANGGTGATCC AGTTCATGAA NATTCTCTGT   60

AAAATNANTN TGGNAAACTA NATNAGTGNN GATNCAGGTC TNGAGNNTCT CCTTCCAGTG   120

NCTAAAAAGT NCACAGANGN CAGGAACTNC CTATCTGCAT GCAGTCACCA GTTCTCATNC   180

TCTANGCA   188

(2) INFORMATION FOR SEQ ID NO:96:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 182 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:96:

CCCAGCCTTC ATGAGCTGGT CATCAGGATA CTTTCTTATG GGNTNGANCA TGCCANTTGC   60

TTNTNCGNGT ANATGTAAGT TCATGNCAAC CNCATTTTTT TTCTAGCCTN NGGNCTNAAG   120

GTNANTCGTC TCNTTANGCA GCNGANNCAG TTGNAGTCTN TCAAANGNNC ACAAANACCT   180

AA   182

(2) INFORMATION FOR SEQ ID NO:97:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 214 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:97:

GGGTTAAGTG ATAGGAGGAG AAGGGCTGAG TAGGTGGAGG GCTATTAGGG CATTTTCTCG   60

GTGTAAATGA TGGGTTGATA TTTTTAATGT GGTGTGTGTA TTTGCCTCGT TGAGTTATAA   120

TAAGTATGTA GAGGGAGTAT AGCCCTGTAA TGATGATATT AGTACCCATT AGGATAATGG   180

TTATGTTTGA TCATGAGAAG GAGGCTATTA CTAC   214

(2) INFORMATION FOR SEQ ID NO:98:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 248 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:98:

ACAACTTTGG CCGTGGAGGA AACTTCAGTG GGCGAGGTGG CTTTGGCGGC AGTCGAGGTG   60

GTGGTGGATA TGGTGGCAGT GGGGATGGCT ATAACGGATT TGGTAACGAT GGAAGCAACT   120

TTGGAGGTGG TGGAAGCTAT AATGATTTTG GCAATTACAA CAATCAATCT TCAAATTTTG   180

GACCCATGAA AGGAGGAAAT TTTGGAGGCA GAAGCTCTGG CCCCTATGGT GGTGGAGGCC   240

AATACTTT   248

(2) INFORMATION FOR SEQ ID NO:99:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 136 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:99:

```
GCGAAGGACC TCCTGCACAC GTCCCCGGAA GAGGAGAAGA GGAAGCACAA GAAGAAGCGC        60

CTGGTGCAGA GCCCCAACTC CTACTTCATG GACGTGAAGT GCCCGGGGTG CTACAAAATC       120

ACCACCGTGT TTCCCT                                                       136
```

(2) INFORMATION FOR SEQ ID NO:100:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 203 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:100:

```
ATCTGCCATT TTAGACTTAA AGGAAATATT CCACGTGTTA TTTACGATCC AGAAGTTTTT        60

GAGTAATTCT GGCTTTTAAA AACTAATGAA GTCCTTTTAG TGTAATGGTA ACAGTGCCAC       120

ATAGTGAATG CCACTGAAAA GGTCAACAGC TACATTTTGG TGTTGTGAGC ATTATACCGC       180

AAGACTTACA TAGTTCAGTA TAA                                               203
```

(2) INFORMATION FOR SEQ ID NO:101:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 246 base pairs
        (B) TYPE: nucleic acid

        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:101:

GGTCCTTGTA TCACTTTCAT TTGCATGACG TTCCTTGCAG GTGGTGGGAG CCTGGGCTTT   60

TGGGGAGCCA GAACCTTCTG GCCCCCAGAA TCACCCCCTC CTAGCCCCCT CTAGTCCAGT   120

TTGCCTCCCC TGCCCCCATT TTCCAAACCT CTTGTCCCCT CCCCTCCCTC CCCCCTCCCC   180

CCAGCTGGTG TGGAAGTGTT CTCGGAGTTC AGTGTGTATG AAGGACAATA GTTTGCACTG   240

GAGTTT   246

(2) INFORMATION FOR SEQ ID NO:102:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 224 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:102:

GGATGATTGC CCAGAGCGTG ACAGCGGTCG CAGGGCTGGT GTCCTACCCC TTTGACACTG   60

TCCGCCGTAG ATGATGATGC AGTCTGGCCG GAAAGGGGCG GATATTATGT ACACTGGGAC   120

GGTGGACTGC TGGAGGAAGA TTGCAAAAGA TGAGGGAGCC AAGGCTTTCT TCAAAGGTGC   180

CTGGTCCAAT GTGTTGAGAG GCATGGGCGG AGCTTTCGTA TTGG   224

(2) INFORMATION FOR SEQ ID NO:103:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 270 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:103:

ACGACTCACT ATCAGGGCGA ATTGGGCCCT CTAGATGCAT GCTCGAGCGG CCGCCAGTGT   60

GGGAAAAGGA GAGGCATGCC GCGGAGGTGC GCAGGAACAA GGAACTCCAG GTTGAACTGT   120

CTGGCTGAAA CGATGGAGGG TATGGCACGC CCCACCATTA GTAAATCCCC CTGCCTATAT   180

TATAATGGTT CATGCGATAT CAGTATGGGA AATGTATGAC ATGGTTTAAA AAGAACTCAT   240

TATAAAAAAC AAAAACAAAA AAACAGAATC   270

(2) INFORMATION FOR SEQ ID NO:104:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 280 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:104:

AGCATGCTGA TCCCCATTGC CGTGGGCGGC CTGCGGGGGC TGGTCCTCAT CGTCCTCATT   60

GCCTACCTCA TCGGCAGGAA GAGGAGCCAC GCGGCTACCA GACGATCTAG CAGGGCTGCG   120

ACACGTCGGG CCGGCTGCCA CTTCCGGTCC TCCGCTCGTC CCCTGAGCTT AGGTTGGCGT   180

GGAGGGCGGC ACGTTTCTTG CAAACTGATT TTCAAATCTG CTTTATCCGA TGTGAAGTTC   240

ATCTTGCAAC ATTTACTATG CACAAGAGTA TTGAAATGAC   280

(2) INFORMATION FOR SEQ ID NO:105:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 529 base pairs
            (B) TYPE: nucleic acid

    (C) STRANDEDNESS: single
    (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:105:

TTCATTATGA AAATATCAAT AAATATGTCA TTAGTTTACA TTCAACTCTT TGTTATAAAA   60

TTAAACTTTT TAATAATAAG TGAAATGGGT GATTTCCCCC TGGAGGGATG TCAACAGGCT   120

TAAAATCATT TCCCGGTTTC ATAAAATACA AACTCCTTTG AAAAAGGGAC AAAATCTCTT   180

CATACTTTTG GGGAACGGAT ACTGTGTAAG CCCTCTGTAC AAAAGTTTGG GGTTTTCATT   240

GTTACACTTT GGGGGTTTCC CTTTTCAAGG GGCCCCCCTG TGGGGGGTTT TTTTTTTATG   300

CGGGCAACCA ACTAAATTTT TTTTCCCAAA TGGAATGCCC CGCCCTTTTT TTTCCTAATG   360

TTTTTTGCAA TAAGGGGGGC CAAAACCGGG GGAGGGTTTT TCCATGAAAA GGGTTCCTTA   420

AGGGTGAGGG GGAACCACGC TTTGGGGGGG GGTTTTCCTT TTAAGTTTGT GGCCCCAGTA   480

GGGGGGAGAA AGCCCTCCCC CCGGGAAACC AGGGTTTGGT TCCCCACGG   529

(2) INFORMATION FOR SEQ ID NO:106:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 245 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:106:

CCTGAGAATA GGTCTAGCAT TGTTCCACAC AAAACATTTG AAGGACCCAA ATTTGTAGCA   60

AATTCCATGG CAGTGAAGTT GAGCTGCTAT AGTTAATAAA CTGGGCATTC TTGATACTTG   120

AATATGGAAT ATGTGCACAA GGGAAGTAAA TACAACATTG CACTTTATAA GCACTGTATT   180

GTTAAGTGGG AAATGCAATG TCTTTAAAAT AAAACTGTAT TTAAAATTGG CGCCCCAAAA   240

AAAAA   245

(2) INFORMATION FOR SEQ ID NO:107:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 236 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:107:

CCTGAGAATA GGTCTAGCAT TGTTCCACAC AAAACATTTG AAGGACCCAA ATTTGTAGCA   60

AATTCCATGG CAGTGAAGTT GAGCTGCTAT AGTTAATAAA CTGGGCATTC TTGATACTTG   120

AATATGGAAT ATGTGCACAA GGAAAGTAAA TACAACATTG CACTTTATAA GCACTGGTAT   180

TGTTAAGTGG GGAATGCAAT GTGCTTAAAT AAAACTGTAT TTAAAATTGG CACCAA   236

(2) INFORMATION FOR SEQ ID NO:108:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 256 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:108:

CTTTAGAGGA CACACACNCA CGGGGCCGCC GCCCCCCAGT AGTCGGTCTT GTAAATGCGC   60

AGTGTCCTAG TGCCCGTTGT CTGCTACCCC GGCCTCGCCC CCGCCCCGCC CCGTGCCGTG   120

GACATCCGGG CCCACTCCTT ACCCATCCGG GCCTCCGGCC CCCACTCATC TGCCCTAGAG   180

CGCTCTGTAG AAGGGTGAAT TAGAGTTGTA TTTCTCTTCA CTGGATGTTT CTTATTTATA   240

AAGATTTGAT CTGTTC   256

(2) INFORMATION FOR SEQ ID NO:109:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 272 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:109:

GCGACACGTT CTGTCATTTA TGTTCCTCCT CCTTTTGCTG CTGCTGCCAT CAATGAAGCT   60

GTTGAGGCGG AAATGCCCTT GGTTGTGTGC ATTACTGAAG GTATCCCACA GCAGGACATG   120

GTGCGGGTCA AGCACAAACT GCTGCGTCAG GGAAAGACCA GGCTGATCGG GCCTAACTGC   180

CCTGGAGTGA TCAATCCTGG AGAATGCAAA ATTGGCATCA TGCTGGCCAT ATTCACAAGA   240

AAGGAAGAGT TGGTATTGTG TCCAGATCTG GG   272

(2) INFORMATION FOR SEQ ID NO:110:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 264 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:110:

GGAAAGATGG GATTGTATGA AACACTGCAT TTCACAGCAA AGACCTCAGT CCAGAACACA   60

ACACAGGGGA CCAAGTGGAT TCAGGTGTGG TCAAAACTCT GGGGATCACA GTGGGGATAC   120

CACCTCCAGG GCTGGTGACA GATTCAGGAC CCTCCTGGCA CACCCGGGAC CCCAGGGATA   180

AAAGGAGAGA AAGGGCTGCC AGGGCTGGCT GGAGACCATG GCGAGTTTGG GGAGAAGGGA   240

GACCAGGGAT TCTGGAATCA GAAA   264

(2) INFORMATION FOR SEQ ID NO:111:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 257 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:111:

TTCCAGACGG GAGATTGATT GGAAAAAAAA GTAATGTGTT CCATTTAAAA TTTTGGTATA   60

TGGCATTTTC TGACTTAGGA AGCCACAATG TTTTTGTTCT TGGCCCATCA TGACATTGGG   120

TAGCATTAAG TTTTGTGCTT CCAAATCACT TTTGTTTTTA AGGATTTCTT GATCTTGTTA   180

TAGCCTGCCT TCAATTTTGA TCTTTATTCT TTCTATTTGT CAGGTGTACA GGATTACCTT   240

TTTTAGCCTT CTGTCTT   257

(2) INFORMATION FOR SEQ ID NO:112:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 286 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:112:

ACCCTTTCCT ATGTGTTTTA TCTAATTATT TTGGTTGTTA ATATGGTAAT AATTAAAAGT   60

CAAGGTAAAT TTTAAATATT AAGATTCTG ATTTATTGAG CTTGACTTAT GCCACCACGC   120

TTATGTAAAA TGAAAGTAGC ACCATGGTGA AACTGAAAAA AGTTGCTCAG TTGTAACAGT   180

TTTGATTTAT TCTTTCTTGT GACCTCTTTC CCTTATTGTC TTGAACCATA GCAAAAGGAT   240

ACTGCATCTC TTAATAATTG TAGTGCTGAG GTTATTGAAG TTATAT   286

(2) INFORMATION FOR SEQ ID NO:113:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 204 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:113:

GTTATATTGA CTCCTACAAA CATAATCGTA AAGTGAATCT TTGCTCAAGT GTTGTCAAGG   60

GTATATCCTG AGAATAGGGG GAATCAATGG ACGAAGCCTC CTATGATAGC GAATACTGCT   120

CCTATTGACA AGACATAGTG AAAGTGGGCC ACTACGTAAT ATGTGTCGTG AAGAACAATG   180

TCTAGTGAAG AGTTTGCTAG TACA   204

(2) INFORMATION FOR SEQ ID NO:114:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 74 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:114:

GCTATAGACA CACAACTCTC TCTCTCTCTC TCTCTCTCTC TCTCTCTCTC TCTCTCTCTC   60

TCTTTCACTC ACCA   74

(2) INFORMATION FOR SEQ ID NO:115:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 230 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:115:

ACGCTCGTTT TCCAAAGAGA AGAGCGTTGT TTAGAGTAGC GAAATTCGAA GGCTGCTTAG   60

GCGCATTGTA AAGCTGTTGG GGAAATAACT CCACAAGTTT CGTGAGTGGA AATGTAGTGC   120

TCGAAACACA TTCTGCTTTA AAAGGTTGTA ACAAATACAA ACAAATTTAA AAAAAGCTCT   180

GACAAATGTT TTGTGTGGGG AAGCGGGGTT CCAAAATACA GGGCGGCCCC   230

(2) INFORMATION FOR SEQ ID NO:116:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 96 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:116:

TTGTCATCTC TTCAAGAATT GACAACAGAT TTTGGTTTTC TACTGTCATG TGGAACATTA   60

GGCCCCAGCT TCGGCTCCTT GTGCGAGGAA AATAAA   96

(2) INFORMATION FOR SEQ ID NO:117:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 277 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:117:

GCATCTGATG GCCTTAAGGG TCGTGTGTTT GAAGTAAGCC TGGCTGATTT GCAGAATGAT   60

GAAGTTGCAT TTAGGAAATT CAAGCTAATT ACTGAAGATG TTCAGGGCAA AAACTGCCTG   120

ACTAATCTCC ATGGCATGGA TCTTACCCGG GACAAAATGT GCTCCATGGT CAAAAAATGG   180

CAGACCATGA TTGAAGCTCA CGTTGATGTC AAAACTACCG ATGGGTATTT GCTTCGTCTC   240

TTTTGTGTCG GTTTTACTAA AAAACGCAAC AATCAGA   277

(2) INFORMATION FOR SEQ ID NO:118:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 148 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:118:

CCTTCCAGAA CCCTGAGGAG CAGGATGAAG GCTGGCTCAT GGGCGTGAAG GAGAGTGACT   60

GGAACCAGCA CCTAGAGCTG GAGAAATGTC GGGGCGTCTT CCCCGAGAAC TTCACCGAGC   120

GGGTTCAGTG AGGGCAGCAG CTGCTGAG   148

(2) INFORMATION FOR SEQ ID NO:119:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 244 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:119:

TCTACGACCA GGCTTTGCAG CAGGCCGTGG TAGACGACGA CGCCAACAAT GCCAAGGCCG   60

TGGTGAAGAC CTTCCATGAG ACGCTCAACT GCTGTGGCTC CAGCACGCTC TCCGCGCTGA   120

CCACCTCCAT TCTCAAGAAC AACCTGTGTC CTTCAGGCAG CACTGTCATC AGCAACTTCT   180

TCAAGGAGGA CTGCCACCAG AAGATCGATG ACCTCTTCTC GGGAAAGCTG TATCTCATTG   240

GCAT   244

(2) INFORMATION FOR SEQ ID NO:120:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 220 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:120:

CACCTAAAGA GTTGCCAGGT CTCTGTCACA CATCTCCATT CACAACAGAT AGGGTGTGAT   60

GCTTTTACTA AACTTTCTTA TCCTAGGACC TGCTGCAATG GTTCAAGGAA CTGGAAAGAT   120

GCTTTCTCTT CTTCCTTTCC CTCACTCCAT CCCTGTCTTT ACTCCTCAGA CTTCCTGTAA   180

AACATTAGTA AGATAAGAAT TAAAAGTCAC ACGAATCCAC   220

(2) INFORMATION FOR SEQ ID NO:121:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 65 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:121:

ATTTGGCTCA GTGGCAGAGC GCTTGCCTAG GAAGAGCAAG GCCCTGGGTT CGGTCCCCAG   60

CTCCG   65

(2) INFORMATION FOR SEQ ID NO:122:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 65 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:122:

GGGAGGAGGA GGAAGAGGAG GAAGGAGAGG AGGAGGAGGA GGCTGCAAAG GCTCTGGGCT   60

CCTCT   65

(2) INFORMATION FOR SEQ ID NO:123:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 163 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:123:

GTAATTATTG GCTCAACTTT CCTAATTGTC TGTCTACTAC GACAACTAAA ATTCCACTTC   60

ACATCAAAAC ATCATTTCGG ATTTGAAGCC GCAGCATGAT ACTGACACTT CGTAGATGTA   120

GTTTGACTAT TCCTATACGT TTCTATCTAT TGATGAGGAT CCT   163

(2) INFORMATION FOR SEQ ID NO:124:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 203 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:124:

GATTTGGAGA AGCCTTCGCA TCAAAACGAG AAGTACGCTC AATTTCCTAC TCCTCAACTA   60

ACCTAGAATG ACTGCATGGA TGCCCCCCAC CCTACCACAC ATTCGAAGAA CCTTCCTACG   120

TAAAAGTTAA ATAAGAAAGG AAGGATTCGA ACCCCCTACA ACTGGTTTCA AGCCAATTTC   180

ATAACCATTA TGTCTTTCTC AAT   203

(2) INFORMATION FOR SEQ ID NO:125:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 231 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:125:

AAGGATAATG CTGTTTATTA AAAATATACT CAGGAAGTCA GGGTATTGAT GCAATTTTAC   60

ATACGCACTT GGGTAGTCTG AAGTTCCATT ATTCCAGCAG TTTATATAAA TGTTTCAGAT   120

CAAAAGAGAA AGAAAACACT TTACAGAGAC CAGCAGTTGC TTATCAGTTT GGTCATGAGT   180

CTGCTTGTAG TAAAAATAAA ACTCCCTCTT GCATTGCTGA AGAATGTCCT T   231

(2) INFORMATION FOR SEQ ID NO:126:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 269 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:126:

CAGCTCCCTA GTACTTTACT ATTATTTCAC TAATACTAAC AACAAAACTA ACACACACAA   60

GCACAATAGA CGCCCAAGAA GTAGAAACAA TTTGAACAAT CCTCCCAGCT GTCATTCTTA   120

TCCTAATTGC CCTTCCCTCC CTACGAATTC TATACATAAT AGACGAGATT AATAACCCAG   180

TTCTAACAGT AAAAACTATA GGACACCAAT GATACTGAAG CTATGAATAT CTGACTATAA   240

GACCTATGCT TTGACTCCTA CATAATCCC   269

(2) INFORMATION FOR SEQ ID NO:127:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 347 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:127:

CCATGCTTGT GACAGACATA CAGCCACTTC CAACTAAAGC AAGCCTCTGC TTCCTGCTAC   60

CTGCATGGAG CCCACTGTGA CACTCAGACC ATCCCCGGTC ACTCACTCGT GTCTGAGAAT   120

CTCAGTGAGA GCTGCCTCTG TCACGGACGG AAGCCAACAC AGCCACCTCT CGACCTGGCT   180

CCCCACAGCA CCCACCCTCC CTGCATGCAG CTGTCCCTGC TAACCCCCAA TGTTATGTTA   240

CACTGTGTAA ATCCCCACTG CTGCCGTGTG TGGGTTGTGT ACGTCGTCAT GTCCTGGTTT   300

ATAACTATGG TGCGGTCGGG AAGGATTCCT GTAATGCTGC TCTAAGA   347

(2) INFORMATION FOR SEQ ID NO:128:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 323 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:128:

CCTAGACTCA CAAGTCAAAG TAATACTAAT ATCTTATTGA CCCAATTATT GATCAACGGA   60

CCAAGTTACC CTAGGGATAA CAGCGCAATC CTATTTAAGA GTTCATATCG ACAATTAGGG   120

TTTACGACCT CGATGTTGGA TCAGGACATC CCAATGGTGC AGAAGCTATT AATGGTTCGT   180

TTGTTCAACG ATTAAAGTCC TACGTGATCT GAGTTCAGAC CGGAGCAATC CAGGTCGGTT   240

TCTATCTATT TACAATTTCT CCCAGTACGA AAGGACAAGA GAAATGGAGC CTCCTTACCA   300

TAAGTGCTCC CAACCAATTT ATG   323

(2) INFORMATION FOR SEQ ID NO:129:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 335 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:129:

GCTTCAATTT ACTAGTTCAA CTTATATAAA AACAACCTAA TGGGCTAAAA CAAAATAAAT   60

ATGAACTAAA AAATTTCGGT TGGGGTGACC TCGGAGAATA AAAAATCCTC CGAATGATTT   120

TAACCTAGAC TCACAAGTCA AAGTAATACT AATATCTTAT TGACCCAATT ATTGATCAAC   180

GGACCAAGTT ACCCTAGGGA TAACAGCGCA ATCCTATTTA AGAGTTCATA TCGACAATTA   240

GGGCCCACGA CCTCGATGTT GGATCAGGAC ATCCCAATGG TGCAGAAGCT ATTAATGGTT   300

CGTTTGTTCA ACGATTAAAG TCCTACGTGA TCTGA   335

(2) INFORMATION FOR SEQ ID NO:130:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 298 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:130:

AGAGATATCG GAACCCTCTA CCTATTATTT GGAGCCTGAG CAGGAATAGT AGGGACAGCT   60

TTAAGTATTC TAATTCGAGC TGAACTAGGA CAGCCAGGCG CACTCCTAGG AGATGACCAA   120

ATCTATAATG TCATCGTCAC AGCCCATGCA TTCGTAATAA TTTTCTTTAT AGTAATACCT   180

ATAATAATTG GAGGCTTCGG GAACTGACTT GTACCACTAA TAATTGGAGC CCCTGATATA   240

GCATTCCCAC GAATAAATAA CATAAGCTTT TGACTGCTTC CTCCATCATT TCTACTCC   298

(2) INFORMATION FOR SEQ ID NO:131:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 329 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:131:

GAGCTGTTGC CAGTGTAAAG ACAGCAAACA TGGACACTCT CGCACTGTGC ATCACAAAGC   60

TAACAAATCG AAATCTTGAA TGCAGTCTGT CCTAAGTCCA GGCAAGTGAC AGCCATGTGT   120

GTCTGCAGTG CTGTGTCACC ACGTCCTGCA TTGTTGGAGC TGCTGCAGGG ACACTGAGAT   180

GAGCAGGTTC TTTGGAAAGA ACTGTTGTGC TCCTCAAAGC AGTGTTCAGA TTTTAAAGGT   240

TCTTAGCCTC CTCAGTTCCT TATGTGGAAC TGTAGGATCC CCTTCATAAA TTTTTAAAGT 300

GCTTATGTGA TCCAATTGGT CTACATTTT 329

(2) INFORMATION FOR SEQ ID NO:132:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 224 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:132:

CTTTAGAGAA GGCAGGTCTT ACAAACACTA CAGAAAAGCC GTTTGGACGT AAAAATCCAA 60

GGAGAAAGGA GTCATTAGGA AATGTAACAT AGGACACAGA ACGCATGTTG TGTGATGGTC 120

CCTTCTCTTC CGTGTGGTTC CAGAATATGC TCCTGACCCC AGAGCCGCCA CCTGAGCGCG 180

CACCGGGAAG GTCACAGACG ACTTCAGGCT TCAGGCGCAA CGTC 224